

MicroBooNE Simulation Needs

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Physics List Selection & Vetting

- MicroBooNE currently uses QGSP-BERT (for historical reasons)
- Is there any reason a list optimized for high energy collider experiments will work for low-energy (sub-GeV) neutrino experiments?
- What physics list would be more appropriate for our energy ranges?
- What data is used to constrain these models?

Pion Interactions

- Understanding low energy (sub-GeV) pion interactions in LAr is an important element of MicroBooNE simulations
 - Key for pion/muon separation
- What is that state-of-the-art of (sub-GeV) pion interaction models in G4?
- What data constrains them? How are they extrapolated to LAr?